Part 2 State Experiences

The remainder of the document contains summaries for 13 states that have used facilitation services to varying degrees to help develop and implement a statewide watershed management framework. Each summary includes a description of how framework development was initiated, a timeline for development and implementation, and a summary of progress and accomplishments to date.

Alaska

The Alaska Watershed Partnerships framework has not been finalized. Several pilot projects that are using the elements described in the draft framework document are under way. The vastness of the Alaskan landscape and the patterns of human settlement have been a significant test of the flexibility of the common watershed elements in the framework development process. The Alaska watershed framework is distinguished by the commitment of a wide range of stakeholders to a process that does not rely on any single agency as its primary sponsor.

Scoping

Spring 1994. The USEPA Region 10 Nonpoint Source Program sponsored a meeting in Juneau, Alaska, to propose the use of a statewide watershed approach as a framework for improved coordination among state and federal agencies. The outcome of the 3-day convening meeting, which included several state and federal natural resource management agencies, was a general agreement that a watershed approach should receive further consideration.

June 1995. The Alaska Department of Environmental Conservation (DEC) and USEPA Region 10 sponsored the "Alaska Statewide Resource Management Coordination Workshop" in Anchorage, Alaska. The workshop used a contracted facilitator to conduct the meetings. The purpose of the workshop was to include a wider range of stakeholders in evaluating the use of a statewide watershed approach for Alaska. In addition to DEC and USEPA, participants also included representatives of local governments, tribal corporations, industry groups, environmental organizations, and other state and federal agencies. The workshop was composed of several sessions designed to provide a common understanding of the common elements of the watershed approach, identify challenges and opportunities for an Alaska watershed approach, agree on a process to develop the framework, and define a work plan for framework development. Participants strongly supported the development of a statewide watershed framework. A core work group for proceeding with the development process was identified. Many in attendance chose not to participate directly in the work group, but those organizations were included in a communication strategy that allowed them to continue to have input into the design process. Participants also agreed on the use of a contracted facilitator to support the core work group.

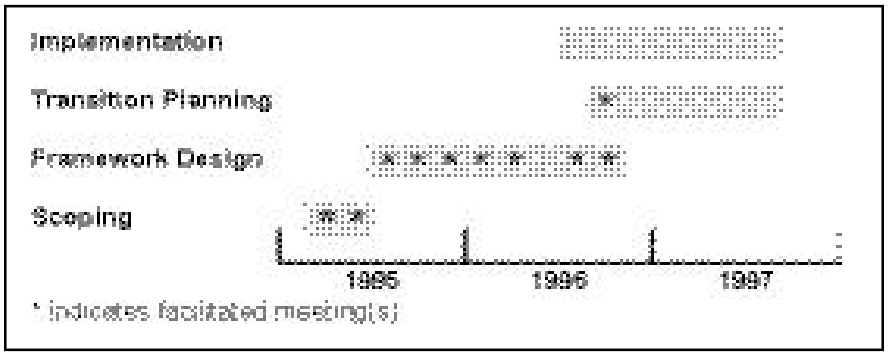


Figure 5. Alaska Framework Development and Implementation Timeline (thru August 1997)

Framework Design

July 1995 to August 1996. The framework design process included seven facilitated sessions of the Statewide Watershed Work Group. The work group meetings were 2 days long and addressed a series of decision topics agreed on by the work group. The purpose of the facilitated discussion was to define the consensus position on the decision topic under consideration (e.g., geographic management units, watershed plans format and content, components of the planning and implementation process in individual watersheds). For several decision topics the work group decided to form task groups to develop more substantive recommendations for review and approval by the entire work group. The task groups included representatives from several different stakeholder groups, and they addressed Mission Statement, Watershed/Environmental Indicators, Partnership Communications, Information Management, and Statewide Cycle and Targeting Criteria. Progress was evaluated at each work group meeting, and each task group disbanded once it had reached consensus on proposed recommendations.

The Statewide Watershed Strategy Work Group remained intact throughout the entire design process with one exception. An industry association decided after several work group meetings that its membership did not support a watershed approach that included the coordinated activities of regulatory agencies. Its concern was that the framework would subject the association's constituency to another layer of regulatory approval in the permitting process. The association expressed concern that the framework would provide any watershed partner the opportunity to review, comment, and potentially object to a permit application made by one of its members. Other industry associations and regulated members of the work group did not share this view and remain active in the design and implementation of Alaska Watershed Partnerships.

Alaska Watershed Partnerships was selected as the title for the emerging framework. DEC was initially the primary sponsor for framework development and implementation. Over time, however, other partners have increased their level of commitment, and the framework is widely recognized to exist outside any individual agency's jurisdiction. Alaska Watershed Partnerships does not include a statewide cycle for rotation through the hydrological management units that were identified by the work group. Rather, partner agencies working in close conjunction with local agencies and stakeholders evaluate a specific set of criteria to determine if a particular location would benefit from the participation of the Alaska Watershed Partnerships (i.e., comprehensive watershed coordination of agency and stakeholder activities). The partnership has adopted a common series of components to guide activities within designated watersheds. However, these components are tailored in response to progress already made by local stakeholders.

Transition Planning

Fall 1996. The final watershed work group meeting was held in October 1996 to adopt the compiled recommendations for the Alaska Watershed Partnerships. Each member had circulated the recommendations within its agency or organization for review and comment. Most participating agencies agreed to use the forums and procedures described in the draft framework document. The work group issued a request for candidate watersheds to all participating organizations.

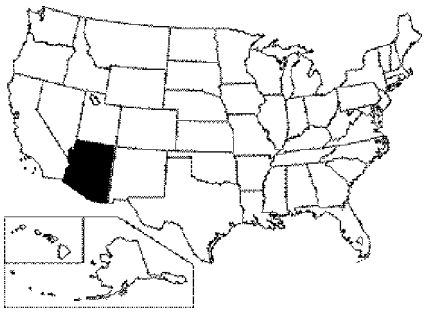
Winter 1997. The draft Alaska Watershed Partnerships summary framework document was released to the public. Formal adoption of the framework document is still pending for some of the participating agencies, most notably DEC. The final framework document, expected to be completed before January 1998, will be composed of a series of volumes that address different aspects of the Alaska Watershed Partnerships program:

- *Volume 1: Alaska's Watershed Framework - Summary Document* (completed).
- *Volume 2: Alaska's Watershed Framework - Tools to Support Watershed Partners*. Tools include integrated monitoring, watershed education activities, watershed analysis, information management and communication support, watershed teams, agency maps, and training for watershed partners.
- *Volume 3: Alaska Watershed Framework - Making Partnerships Work at the Local Level*. Creating stakeholder involvement forums (public participation); volunteer monitoring; citizen actions; working with the media; working with public officials; Water Watch program guide; EPA citizen Monitoring Guide; and guide to local, state, and federal agency contacts for environmental and natural resource management issues/questions/suggestions.
- *Volume 4: Alaska Watershed Framework - Watershed Approach Procedures for Partners*. Procedures for working with local watershed teams, defining and assigning agency watershed teams, watershed team planning and implementation process, key elements of written watershed agreements, organizational capabilities to respond to watershed objectives, performance criteria for watershed teams, priority setting and targeting tools, and others.

Implementation (Post-Facilitation)

July 1997–October 1997. DEC has not yet given formal approval to the draft framework document. Partial implementation of the framework is occurring within DEC. The Nonpoint Source Program (NPS) is using the framework to develop and implement the statewide strategy for NPS controls. The U.S. Geological Survey (USGS) hydrological basins are used to define sectors for outreach and priority setting. DEC has undertaken three major pilot projects to evaluate the value of conducting its operations in a watershed framework. The three projects (Lower Chena River, Mendenhall Valley, and Kenai River) are located in the major USGS hydrological basins adopted by the watershed work group. The other watershed partners represented in the work group have adopted Cook Inlet as a pilot for the Watershed Partnerships framework. The Cook Inlet project will be a featured component of "Watersheds 97: Water, People, and Wildlife", a combined fair, conference, and symposium. One objective of the Cook Inlet Symposium component of Watersheds 97 is to consolidate DEC's experience with its pilot projects and the experience of other partners with the Cook Inlet project into a unified framework. Consideration will then be given to other candidate partnership watersheds.

Arizona



In 1994, as the Arizona Department of Environmental Quality (ADEQ) began reorganizing its staff functions according to environmental media, several members of its Division of Water Quality (DWQ) suggested exploring the watershed approach as a means to integrate across both function and media.

Scoping

May 1995 Session. DWQ hosted a briefing for the ADEQ Directors' office to secure approval for setting up a DWQ watershed strategy work group. The Directors approved the formation of a work group to organize DWQ's (and, in limited cases, the Air and Hazardous Waste Divisions') activities on a watershed basis. The Directors allowed for communication with outside stakeholders but limited any direct involvement of other agencies in the process. The objective of the limited mandate was to make clear that ADEQ DWQ would welcome the voluntary participation of any stakeholder in the watershed framework, but was not assuming responsibility for directing comprehensive resource management for Arizona.

Following up on this briefing, the facilitation team conducted a series of small focus groups to both present educational materials regarding the watershed approach and gather input on opportunities and barriers that the approach should address. Through careful consideration of assignments, the DWQ Director ensured that all programs and staff levels were represented on the watershed strategy work group.

Framework Design

As described below, the work group met monthly to consider prearranged decision topics.

June, July, and August 1995 Sessions. The work group first settled its operating rules, procedures, and membership. It agreed to an aggressive communication strategy that included broad distribution of meeting notes and briefings with many other organizations to solicit input. The statewide Natural Resources Coordinating Committee proved to be an important forum for communication with federal, state, and local agencies.

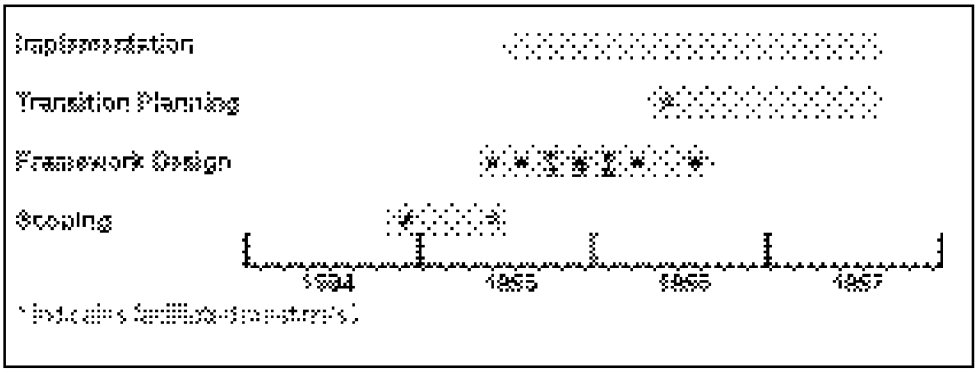


Figure 6. Arizona Framework Development and Implementation Timeline (thru August 1997)

This first series of meetings focused on development of a mission statement, delineation of watershed management zones, definition of procedures and mechanisms for stakeholder involvement, and description of the written product of the watershed management cycle (watershed management zone plans).

September, October, November, December 1995 Sessions. Work group meetings were used to define specific steps and procedures for organizing ADEQ activities and stakeholder involvement within individual watershed management zones. These included strategic monitoring and assessment, setting priorities, and synchronizing NPDES permits.

January, February 1996 Sessions. The work group focused on the roles and responsibilities of specific programs within ADEQ, including identifying many areas of potential collaboration, redundancies that could be eliminated, and potential gaps to be filled by other watershed partners. It proposed an outline for the statewide framework document.

Transition Planning

March, April, May 1996. The work group continued to refine steps and procedures and to add definition to the framework document outline. However, the most important work group activity during this period was active outreach to potential watershed partners, including local agencies, existing watershed associations, and state and federal agencies. Many changes and refinements were made to the work group's watershed strategy in response to the comments and needs of the potential watershed partners contacted as part of the outreach efforts.

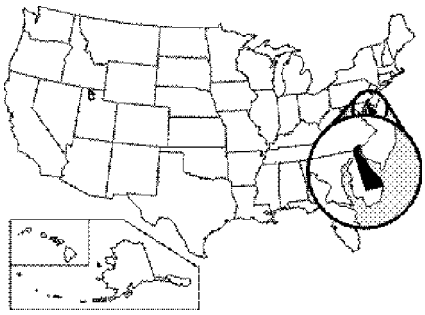
August 1996–May 1997. A draft watershed document was completed and went through three stages of review—internal work group, internal to DWQ, and all watershed partners.

Implementation

ADEQ is phasing the watershed approach into its activities. It is planning a series of staff training and partnership-building workshops in September/October 1997 and is initiating a "roundtable" of ADEQ Section Managers to make decisions on ADEQ staff assignments and budgets based on the output of watershed management zone advisory committees.

The watershed approach strategy directs ADEQ to support existing partners where they are fulfilling community involvement objectives, and to serve as a catalyst or sponsor where there is no existing watershed group. ADEQ is using the watershed framework as a tool to integrate its activities with the Verde River Watershed efforts, which were ongoing before the watershed framework was established. The framework is also being used to help an Upper Gila River community-based advisory group to identify nonpoint sources of pollution and to develop a broader watershed protection strategy that includes point-source, water supply, and infrastructure needs. ADEQ is developing a community profile for a third watershed management zone for the San Pedro-Wilcox Playa-Rio Yaqui. ADEQ anticipates that the pace of implementation efforts for the remaining seven watershed management zones will increase after the staff training and partnership workshops.

Delaware



In spring 1992, the Delaware Department of Natural Resources and Environmental Control (DNREC), Division of Water Resources, Surface Water Management Section, began exploring the statewide watershed management approach. DNREC was spurred by a desire to improve coordination between its natural resource management divisions, to find more holistic solutions to aquatic ecosystem problems, and to improve opportunities for local involvement.

Scoping

September 1992 Session. DNREC hosted a workshop attended by a broad spectrum of stakeholders, including county and city officials, local conservation district representatives, other state agencies, federal agencies, and all divisions within DNREC. Its purpose was to evaluate potential watershed approach objectives, opportunities, and concerns. The participants adopted a framework development and implementation strategy described as the "ripple approach": DNREC would take the plunge in organizing its own activities according to basins; then, as DNREC's watershed management activities became more established, the momentum would create waves of voluntary partnerships. DNREC then formed an internal work group with representatives from each division and outlined a work plan for framework development.

Framework Design

January 1993 Session. The DNREC work group focused on the roles and responsibilities of the participating divisions. Four teams were formed to address issues not addressed at the workshop— Implementation, Coordination, and Institutional Barriers; Management Units, Data Management, and Monitoring; Public Outreach and Education; and Briefing for Department Secretary. These teams were charged with recommending how to build the capabilities to implement the elements, and how to ensure support from senior managers and stakeholders outside DNREC.

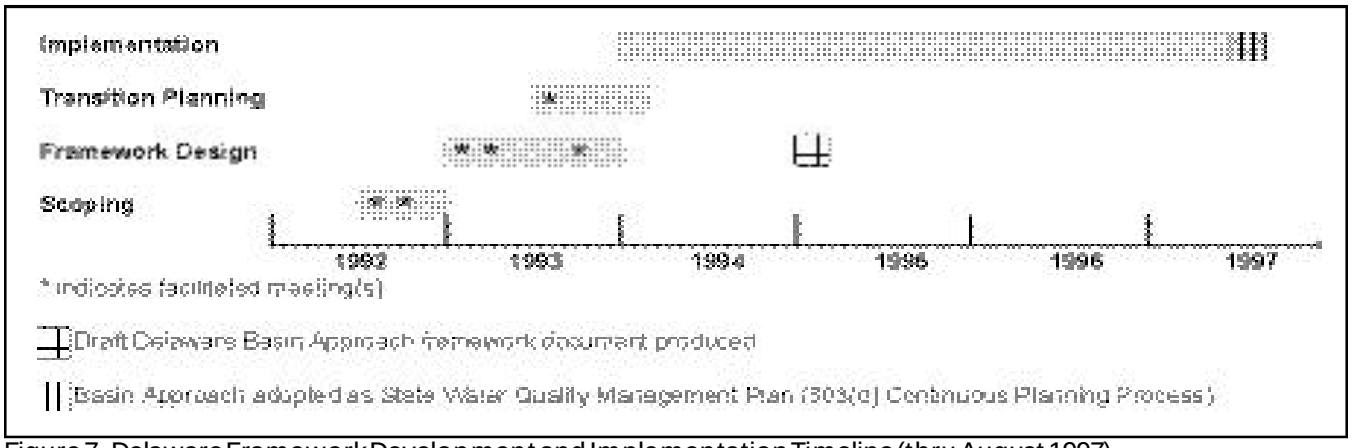


Figure 7. Delaware Framework Development and Implementation Timeline (thru August 1997)

April 1993 Session. The teams presented progress reports at a facilitated meeting that was open to all DNREC staff and other stakeholders. The Management Unit Review Team had delineated five planning basins based on ecosystem characteristics as well as hydrological boundaries. The Monitoring Review Team reported its progress in resolving problems with the distribution of monitoring resources between DNREC's fixed station network and the strategic monitoring needs of the basin approach. The Implementation, Coordination, and Institutional Barriers Review Team recommended forming basin teams with a cross section of program representatives. One institutional issue highlighted as needing attention was the impact of the basin team approach on the traditional in-line management structure that defined supervision, evaluation, and pay scale.

A new Secretary for DNREC was appointed as a result of the November elections. He requested a review of the basin approach initiative before proceeding with its development. This review process took approximately 5 months.

October 1993 Session. The workgroup developed a statewide schedule for the basins, defined specific planning steps within a management cycle, and recommended priority setting criteria. It also compiled a general guide regarding Division and program roles and responsibilities. The work group also described the format and content for integrated basin plans.

Transition Planning

July 1993–October 1993. The work group prepared the Nanticoke River Watershed Pilot Project Plan. The pilot analysis addressed questions such as what tasks needed to be accomplished and by whom, what would be produced, and the cost for each division/program for accomplishing each task in the basin cycle. One purpose of the pilot plan was to refine thinking about how the framework would be implemented; another was to demonstrated to senior managers that there was an adequate level of understanding and support for the basin approach to proceed with implementation.

January 1995. A general, draft Delaware Basin Approach framework document was produced.

December 1996. DNREC developed a more detailed draft framework document. It plans to formally adopt the draft framework by incorporating it into the Continuing Planning Process (CPP) Statewide Water Quality Management Plan. The document is used as an internal reference guide for DNREC and has been a valuable tool in communicating agency operations and procedures to the public.

Implementation (Post-Facilitation)

Basin teams have been formed for the four planning units, as well as an overall coordinating team that works on a statewide basis. Strategic monitoring and information collection plans were not developed for the first basin, but are now being developed for upcoming basins. An integrated assessment involving all agency partners was completed for the first basin and served as the basis for collaborative priority setting and targeting. However, the coordinated assessment and priority setting have not been documented in integrated management plans. DNREC continues to hold the basin plans described in the framework document as a goal, but has not achieved them in practice. DNREC believes that integrated management plans will be realized in the near future.

Georgia

The Georgia General Assembly adopted legislation in 1992 requiring the state's Environmental Protection Division (EPD) to oversee development of river basin management plans for the state's 14 major river basins. The law mandates that plans be completed by the end of 1997 for the Chattahoochee and Flint River basins, by the end of 1998 for the Coosa and Oconee River basins, and one per year thereafter for the remaining basins. Plans must include a description of the basin including land use inventories, a description of plan goals, and a description of the strategies and measures necessary to accomplish the goals. The law also requires that a seven-person local advisory committee be appointed to provide advice and council to EPD during the plan development.

Scoping

In response to this law, EPD has adopted a River Basin Management Planning (RBMP) approach to watershed protection. Local advisory committees in the Chattahoochee, Flint, Coosa, and Oconee basins were convened in 1993 to begin discussing the approach. In January 1994, the four basin committees worked together in a facilitated meeting to finalize the vision, mission, goals, and objectives for the RBMP framework. A small EPD committee then outlined initial ideas for the framework design. In October 1994, a larger work group, consisting of representatives of the Water Protection and Water Resources Branches of EPD and the state's Wildlife Resources Division, was convened to expedite framework design and achieve broader buy-in by various program staff.

Framework Design and Transition Planning

The framework development work group met seven times in 2-day workshops between October 1994 and July 1995. Accomplishments for these facilitated meetings are summarized below:

October 13–14, 1994. After reviewing frameworks established in other states, the work group assessed framework needs and building blocks in

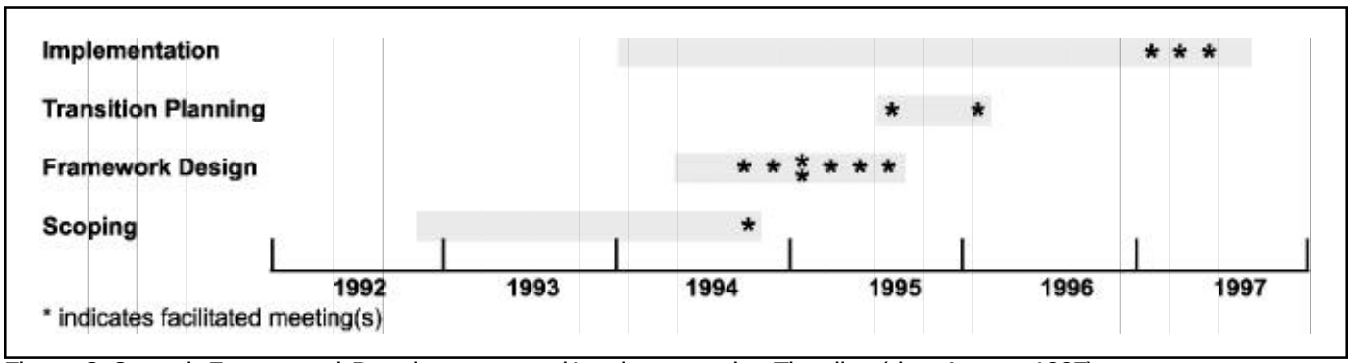


Figure 8. Georgia Framework Development and Implementation Timeline (thru August 1997)

Georgia. Specific tasks and barriers to address were identified, and a preliminary work plan for framework development was developed.

November 16–17, 1994. The work group reached consensus on the intended audiences, purposes, and contents for the basin plans and developed a cycle of activities that would lead to basin plan development and implementation, and updates every 5 years. Options for grouping basins were established, along with an initial statewide schedule for implementing the cycle of activities. Key roles and responsibilities were outlined for EPD programs, and consensus was reached on how to approach partners outside the work group to seek their support and participation.

January 11–12, 1995. The work group hosted a meeting attended by 49 separate local, state, and federal agencies throughout Georgia and from adjacent states to discuss the developing RBMP approach and opportunities for partnerships and complementary efforts. Additionally, the work group evaluated detailed options for basin sequencing and scheduling, and identified technical and administrative issues that remained to be resolved.

February 27–28, 1995. The work group reached consensus on a revised basin sequence and detailed statewide schedule for implementation. Strategic monitoring plan components and format were outlined. An organizational structure including basin teams, basin coordinators, and the local advisory committees was established, and corresponding roles and linkages were identified. An overall activity reference guide was developed to map out specific actions, desired outcomes or products, responsible parties, and timing for each step of the basin cycle.

April 19–20, 1995. Methods and criteria for setting priorities within the RBMP framework were conceptualized. Detailed technical and administrative work plans were developed for EPD's Water Protection and Water Resources Branches, synchronizing their program activities with the basin cycle where determined to be more effective and efficient.

May 30–31, 1995. The work group continued developing methods and criteria for the prioritization component of the framework. Additionally, members established an inventory of key watershed management implementation tools including regulatory authorities and technical assistance programs. Components of a transition plan for implementing the new framework were outlined.

July 18–19, 1995. The work group continued developing the prioritization component and outlining the transition plan. One day was spent reviewing and planning a process for development of an information management system to enhance framework implementation.

August–December 1995. The facilitator worked with EPD to draft a framework document describing the RBMP mission, goals, objectives, framework components, roles and responsibilities, and transition plan.

Implementation

Because of the mandated deadlines for completing basin plans, Georgia EPD began implementing framework components prior to completion of the entire framework design and framework document. Early implementation efforts began in 1994 with conducting stakeholder and local

advisory committee meetings to discuss current management issues and identify additional monitoring needs. Basin monitoring plans were developed and implemented for the Chattahoochee and Flint basins in 1994; the Coosa, Oconee, and Tallapoosa basins in 1995, the Savannah and Ogeechee basins in 1996, and the four basins in group 4 in 1997.

Assessments of the basin information for the Chattahoochee and Flint were completed in 1996, along with a priority ranking for addressing waters contained on the state's updated 303(d) list. Staffing resource shortages resulted in a delay in convening technical basin teams for development of the basin plans for the Chattahoochee and Flint. Beginning in January of 1997, EPD used a facilitated basin team process to expedite development of these plans. Draft basin plans were completed in July 1997 and will undergo public review and comment during August and September, using stakeholder and local advisory committee meetings. Final plans for these basins are scheduled for approval by the state's Natural Resources Board in October or November 1997.

Currently, EPD is assembling basin teams for the remaining four basin groups. As framework implementation continues, EPD plans to enhance opportunities for additional and stronger partnerships to design and carry out watershed management action plans and strategies in every basin. Working with local governments and regional development centers, as well as other partners at the local level, EPD hopes to achieve increased commitment and action to enhance and protect the waters of the state.

Kentucky

Kentucky's effort to build a statewide watershed management approach began in 1995 as the result of a permit program reengineering initiative. As a part of its goals to improve agency effectiveness and efficiency, the state's Division of Water (DOW) committed to the development of a statewide watershed management approach. DOW hired a Watershed Coordinator in February 1996 to lead its effort. An internal watershed framework development work group was formed immediately, and it began to study approaches in other states for potential application in Kentucky. Additionally, a dialogue began with the Kentucky River Authority to consider the Kentucky River Basin for a pilot watershed approach application.

Scoping

March–May 1996. DOW hosted an EPA-sponsored workshop, *An Executive Short Course in Statewide Watershed Management*, in March 1996 for a large group of DOW managers and executives from approximately 25 other resource management-related agencies. Discussion during the workshop led to the idea for an expanded, multiagency framework that would coordinate much more than DOW water quality permit-related activities. In May 1996, representatives of 12 state and federal agencies met to define their shared mission. A facilitated series of discussions helped to outline the opportunities and needs to be addressed by the framework, identify existing efforts to build on and potential partner contributions, and design a framework development process including work group organization and operating rules.

Framework Design

July–November 1996. The newly constituted framework development work group met in July and August 1996 and reached consensus on the use of the state's 12 major river basins for organizing management activities. A general sequence of management steps was developed for a 5-year management cycle, along with an overall statewide schedule for administering the cycle across all 12 major basins and tributaries to the Ohio River. By this time, interest was increasing in the approach and work group membership had increased to over 30 people representing more than 20 agencies anorganizations. To increase focus and expedite design, the work group formed five subcommittees that would clarify the actions and support needed

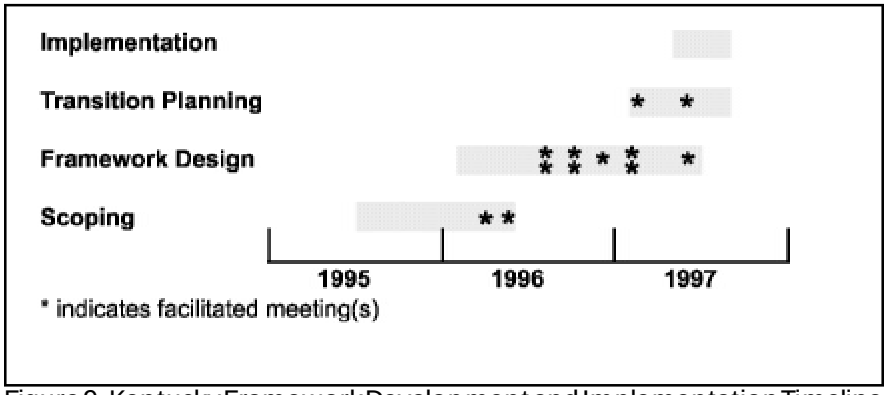


Figure 9. Kentucky Framework Development and Implementation Timeline (thru August 1997)

throughout the management cycle for the following areas: monitoring and assessment; prioritization, planning, and implementation; public participation; data management; and funding.

A total of 12 subcommittee meetings were facilitated between August and November 1996, with participation from more than 30 agencies and organizations. The Public Participation subcommittee contributed by identifying key audiences to involve in the framework, developing the idea for a Partner Network that is built on existing associations and forums, and establishing the need for a formal role in coordinating public information material development and dissemination, along with means for obtaining public input. The Monitoring and Assessment subcommittee produced an extensive inventory of existing resources and capabilities to drawn on, and refined the steps and responsibilities for developing and implementing strategic data collection plans and carrying out information assessment. The Prioritization, Planning, and Implementation subcommittee developed a methodology for ranking watersheds for priority in developing management action plans, outlined the purposes and components of basin and watershed action plans, and designed the administrative structure for operating the framework. The data management subcommittee clarified framework support needs and outlined how existing or developing capabilities would address those needs. The Funding subcommittee did not meet during this period.

Transition Planning

December 1996–June 1997. The facilitators compiled all of the work group and subcommittee design ideas and recommendations into a rough draft framework document that was distributed to and reviewed by the entire work group in January 1997. Refinements in the framework design were made over the next few months.

February 1997–June 1997. The framework development work group met in February and May 1997 to plan for the transition to the new approach. Obtaining funding to support Basin Coordinator and Public Information Coordinator functions became a key concern, and the Funding Subcommittee met with budgeting experts from the executive and legislative branches of state government to identify feasible options. The work group also discussed methods and timing for achieving buy-in and commitment to implement the framework, fulfilling outreach and training needs, and establishing the *Statewide Steering Committee* and *River Basin Teams* to oversee and coordinate implementation. The work group determined that a polished, easy-to-use and easy-to-read framework document was a must for achieving buy-in, conducting outreach, and guiding implementation. Efforts through June 1997 focused on completing the polished framework document, and on developing specialized education and guidance materials.

Implementation (Post-Facilitation)

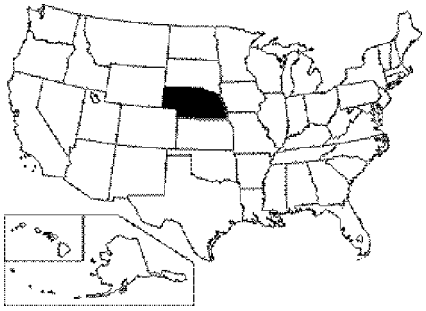
Full implementation will begin after all partner agencies and organizations have had sufficient opportunity to review the June 30, 1997, version of the framework document and sign a Resolution of Intent to support and implement the framework design. A formal signing ceremony is planned for September 1998. In the interim, the framework development work group will continue to meet in lieu of a Statewide Steering Committee. Basin coordination functions were assigned to two people for the Kentucky

River Basin, and work group members have provided technical staff support to complete a Basin Status Report for partner and public review this fall. Once the official Steering Committee is in place, a Kentucky River Basin Team will be officially assembled to carry out the basin management cycle activities with facilitation and administration by the basin coordinators.

Partnerships and more integrated management are already becoming stronger in the Kentucky River Basin. The Kentucky Water Watch program, an association of volunteers for more informed participation in watershed management, is working with the Kentucky River Authority, Kentucky Waterways Alliance, and DOW to conduct extensive stream surveys and data collection. With the help of a scientific advisory team and training workshops, volunteers will gather information to update the status of water quality throughout the basin and help identify problem or special protection areas. Roundtable meetings in the fall to discuss their findings will occur at the same time that framework partners are soliciting public feedback on their Basin Status Report and input on issues for additional management action or study. The efforts are ensuring public participation from the onset of the 5-year management cycle for the basin.

The Kentucky Watershed Management Framework's statewide schedule calls for efforts in the next group of basins (Salt and Licking Rivers) to begin in July 1998, and the remaining three basin groups in July 1999, 2000, and 2001, respectively.

Nebraska



The Nebraska statewide watershed management approach was initiated in 1992 by the state's Water Quality Division, during its strategic budget and long-term planning process. The Division had experienced significant budget cuts and was searching for ways to make the most efficient and effective use of its available resources. Exposure to a statewide basin approach through presentations at a national association meeting led to strong interest in exploring its applicability to Nebraska. After several internal scoping sessions, the agency began a 9-month facilitation process in August 1993 to bring in additional expertise and expedite the process of developing a written framework document.

Nebraska used a work group composed of the Division of Water's Sections for Surface Water, Ground Water, Permits and Compliance, Wastewater Facilities, and Emergency Response. Facilitated meetings included one 2-day workshop and six half-day work sessions. Facilitators also provided off-site support in developing a permit renewal schedule synchronized with a statewide basin management cycle, preparing for meetings and documenting results, and producing a written framework document.

Scoping

1992. The Department of Environmental Quality developed goals for integrating and prioritizing activities and optimizing use of available agency resources through comprehensive watershed management for the FY1993 Strategic Budget Plan and Water Quality Division 5-year Strategic Plan.

January–July 1993. The Surface Water Section hosted discussions exploring the watershed approach for organizing agency water quality monitoring. The Surface Water, and Permits and Compliance Sections reached consensus to establish a framework grouping the state's 13 major river basins into five groups that would operate on a 5-year management cycle.

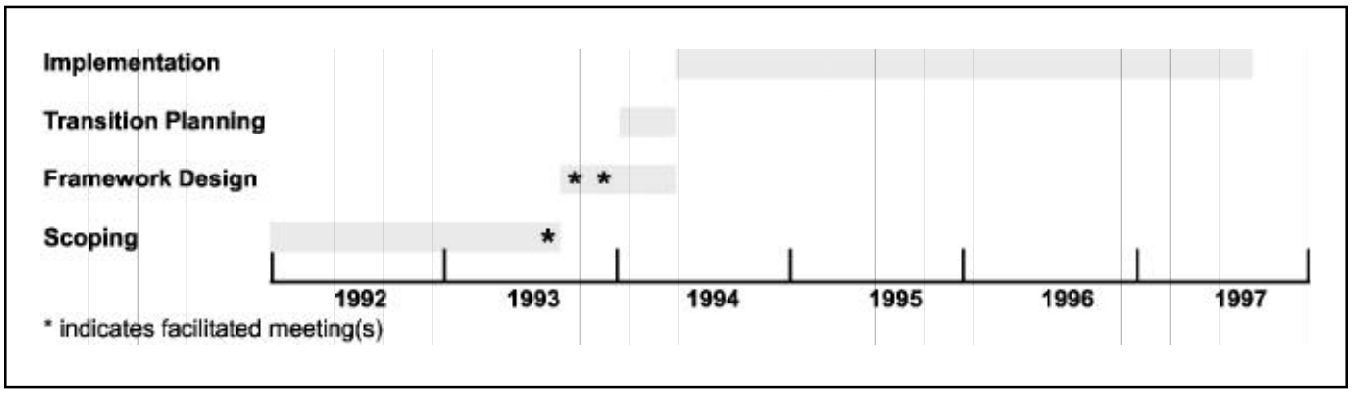


Figure 10. Nebraska Framework Development and Implementation Timeline (thru August 1997)

August 1993. The Division of Water held a 2-day workshop to educate staff on statewide watershed management approaches taken by other states, and to begin the facilitated work group framework development process. The group documented its vision for the framework, along with concerns that should be addressed, and established a work group process and work plan.

Framework Design

October 1993–January 1994. The facilitator and work group conducted six half-day work sessions to design statewide watershed framework components. Accomplishments included establishing a detailed basin management cycle and statewide schedule, defining a basin plan format, developing criteria for setting management priorities and targeting agency efforts, and documenting program roles and responsibilities.

Transition Planning

January 1994. The schedule for synchronizing NPDES permit renewal with the proposed statewide basin management schedule was completed.

January–April 1994. A facilitator worked with work group members to establish keys to success and important next steps for implementing the framework. A framework document was completed to provide a long-term reference of the Division's vision, framework components, roles and responsibilities, and considerations for transition and implementation.

Implementation (Post-Facilitation)

Implementation of the new approach by the Nebraska Division of Water Quality began in May 1994 with the completion and implementation of a strategic monitoring plan for the Lower Platte and Nemaha River basins. The Division has developed partnerships with several agencies and organizations, including the university system and USGS, to leverage monitoring efforts.

In October of 1994, the Surface Water Section obtained the services of a technical staff person from the Natural Resources Conservation Service through an Intergovernmental Personnel Act (IPA) agreement. This led to better coordination of nonpoint source management activities under the statewide framework.

Another framework enhancement occurred with the development of Stream Management Teams under the leadership of the Nebraska Game and Parks Commission. The teams provide expertise to establish management needs and strategies at a local level, complementing and expanding the basin management plans established by the Division of Water.

Overall, the state is a little behind in carrying out its rotating basin schedule. The statewide schedule calls for basin plans to be completed for the Lower Platte and Nemaha Basins in February and June 1997, respectively. The final plan for the Lower Platte is now scheduled for September 1997 (a draft was distributed in June), and a schedule for completing the Nemaha plan is still being worked out. Part of the reason for the delay was a substantial change in the format for the plan (reducing it from a 300-page inventory to a 60-page user-friendly document). The new format will serve as a template, and its simplified form will help to expedite efforts in other basins, which the Division hopes to have back on schedule within the next year. Expectations are to have completed the first iteration of the basin cycle for all 13 basins by early 2002.

New Jersey

As early as 1991, the Office of Environmental Planning (OEP) within the New Jersey Department of Environmental Protection (DEP) began examining use of a watershed approach to achieve agency goals more cost-effectively. In March of 1993, OEP published a "Working Paper on Water Quality Management Planning Reform," which promoted a watershed approach to integrate and coordinate existing water resources programs. Public support was strong, but many program managers within DEP were concerned about the changes that would be brought about by the approach, and whether barriers to building and implementing such a framework could be overcome. To make further progress, DEP initiated the Whippany River Watershed Project. The project helped to begin a partnership among a very diverse group of stakeholders within the watershed and to pilot a management planning process.

Scoping

July 1994. After learning that several other states had overcome similar challenges successfully to implement statewide watershed management frameworks, the OEP Administrator decided to bring in an experienced facilitator to brief other office directors and the DEP Commissioner's Office. The briefing provided DEP with specific examples of how to design statewide framework elements, adding validation to the ideas being promoted by OEP. Several of the elements covered later became templates for components of New Jersey's framework.

Fall 1994–Summer 1995. OEP staff worked closely with several other DEP offices to examine specific agency operations for opportunities for integrated efforts under a watershed approach. Simultaneously, DEP worked with the Governor's office to find ways of carrying out operations more effectively and efficiently. The watershed approach was viewed as the key to more cost-effective, environmentally sound management.

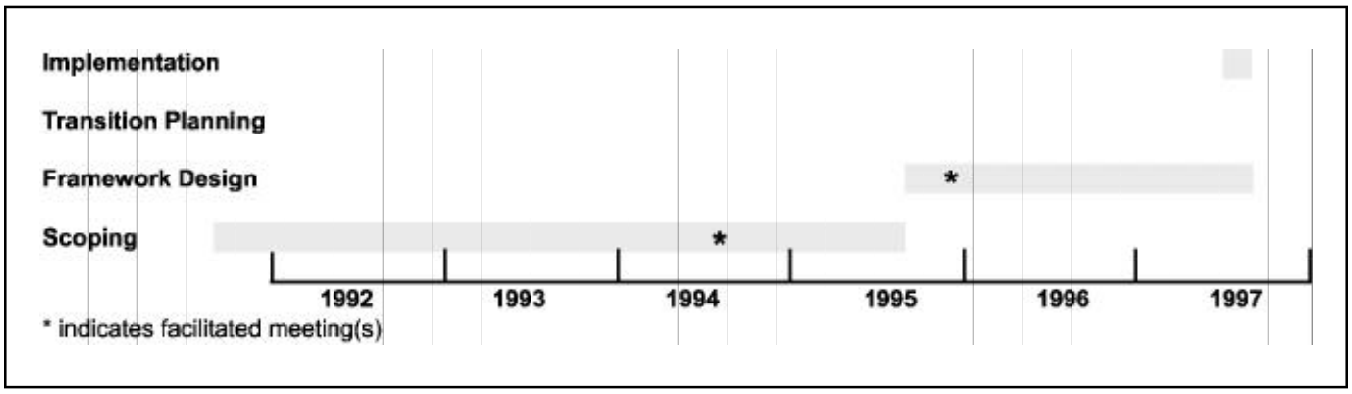


Figure 11. New Jersey Framework Development and Implementation Timeline (thru August 1997)

Fall 1995. A new Administrator was appointed to OEP with the specific directive to develop a statewide watershed management framework.

Framework Design

Fall 1995–September 1996. Numerous forums were held to obtain input on and discuss ideas and issues related to framework design. The experienced facilitator was brought in again to a task force workshop to cover statewide approach development in more detail. Materials provided by the facilitator, including draft framework documents from other states, helped add focus and provide templates that DEP tailored and added to for framework design.

A Watershed Steering Committee was formed to oversee framework design and development. The Committee, with technical input from a Statewide Watershed Characterization and Assessment Team, designed key components, including watershed management areas and a watershed management cycle. Actions for each step were outlined, along with roles and responsibilities for key programs within DEP. Public outreach was conducted between May and August 1996 to raise awareness of preliminary designs and obtain input on refining the framework design. A draft framework document was completed in September 1996 and was widely distributed for review and comment.

April 1997. More than 240 stakeholders attended a DEP meeting to discuss revisions to the draft framework. Based on public input, activities and forums within the framework will be expanded beyond DEP programs to include other stakeholder efforts.

July 1997. A revised framework document was completed incorporating stakeholder input.

Transition Planning

New Jersey is currently in the transition phase. Staff are working on updates to the state rules to reflect the new framework. Additionally, the agency is overhauling its information management system to better support watershed analysis. Fourteen new positions are being added to the agency to conduct watershed monitoring, modeling, and TMDL development. Some staff have already begun to develop preliminary watershed characterizations to support early steps within the watershed management cycle. A unique funding mechanism should be in place within the next year to support watershed efforts. A 4 percent corporate income tax has been levied by the state to fund environmental management. This will translate to approximately $5 million per year for watershed management. The first watershed management area plans are scheduled to be drafted by 1999, and the entire state should have initial plans by the year 2004.

North Carolina

The idea for a statewide watershed management framework was first conceived within the North Carolina Water Quality Section in the late 1980s. The approach initially focused on organizing the Section's surface water quality modeling and NPDES permitting programs. At the time, many of the agency activities for these programs were driven primarily by permit renewal applications. Because the permit expiration dates were not organized by geographic area, staff believed that agency resources were not being used as effectively and efficiently as possible. The effort to streamline a few agency activities eventually turned into the first statewide watershed management approach.

Scoping

1987–1990. A plan for organizing permit expiration dates by basin and subbasin was developed, but implementation of the plan was stymied temporarily by several barriers. Chief among these barriers was finding a way to change permit expiration dates without imposing unbearable workloads on the permit writing staff while meeting all legal mandates. While negotiations on methods were carried out with the EPA Regional Office, North Carolina spent considerable time and funds on automating its permit writing process. By 1990, an approach had been worked out for synchronizing permit renewal by basin.

Early 1990. About that same time, however, focus in North Carolina and around the nation was turning to management of nonpoint sources of pollution and development of Total Maximum Daily Loads (TMDLs). Agency staff began to see promise in organizing several more of its management activities within basin management units, including monitoring, assessment, and the nonpoint source program. Many different ideas were put forth, and with the help of EPA, North Carolina obtained the services of a facilitator to help clarify and document the evolving framework.

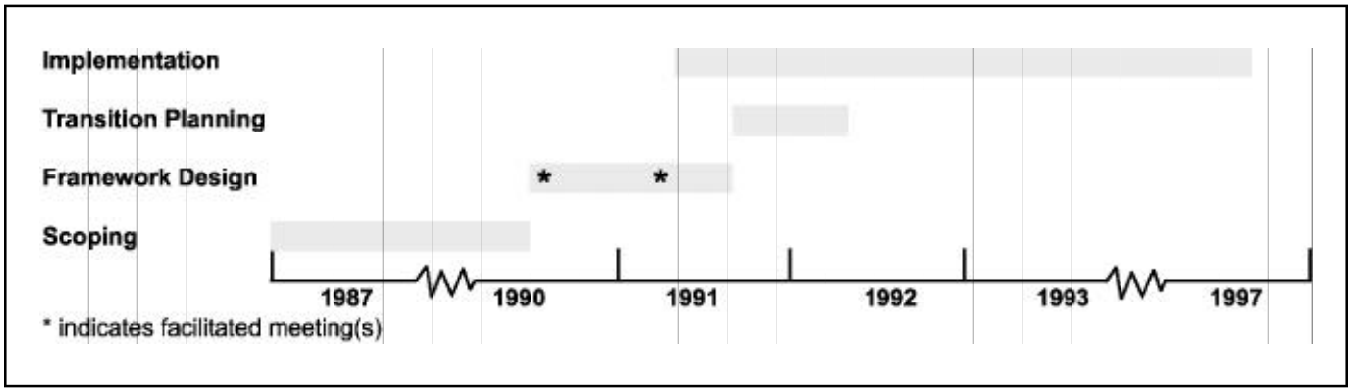


Figure 12. North Carolina Framework Development and Implementation Timeline (thru August 1997)

Framework Design

Summer 1990–Summer 1991. Two workshops and several smaller meetings with representatives from all four branches within the Water Quality Section were facilitated to design the framework. Using the statewide schedule developed for basin-synchronized permitting, staff developed a cycle of watershed activities that would produce a management plan for each basin that would guide implementation activities, including development of NPDES permit wasteload allocations and permit limitations and targeting of nonpoint source control project grants and assistance. Basin management plans would include descriptions of basin resources and ongoing management efforts, assessments of water quality conditions and sources of stress, summaries of key management concerns, TMDLs, and management recommendations.

Section staff and the facilitator spent considerable time clarifying what each branch's roles and responsibilities would be within the framework. It soon became clear that the framework would evolve over time, and the agency distinguished near-term from long-term objectives. Data management, in particular, was identified as an area where continued technological advancements and process improvements by the Section would enhance framework implementation and effectiveness. These and other technical and administrative support needs were outlined in the framework document completed in August 1991.

Transition Planning

Fall 1991–Spring 1992. The Water Quality Section hired a Basin Coordinator to conduct the bulk of public outreach on the approach and manage the development of the basin plans. The Coordinator worked with each participating program to develop more detailed work schedules that mapped out when specific activities would need to occur in each basin to stay on schedule for development and implementation of plans. This allowed staff to work out timing of activities where efforts of one program depended on the results of another program activity. Standard operating procedures were also updated for a number of programs. One of the most challenging tasks was deciding who would write each section of the basin plan, and how the individual sections would be compiled into a single document that would communicate effectively with agency staff and other stakeholders. Additionally, the Section began to develop base maps and other templates for items that would be routinely used and where consistency from program to program was needed. Efforts were set in motion to improve data management systems and computerized watershed analysis capability (e.g., GIS and computer modeling).

Implementation

Implementation efforts began in 1991 with basin-oriented monitoring in the Tar-Pamlico and Lumber River Basins, and basinwide assessment of the Neuse River Basin. The Neuse was selected for development of the first basin plan because of the high degree of attention it was receiving over several water quality issues. The relatively large amount of monitoring and analysis already conducted in the preceding few years allowed staff to jump immediately into the year 2 assessment phase. Although North Carolina's basin management cycle is 5 years in length, with the draft basin plan scheduled for completion about 3.5 years into the cycle, proceeding with assessment allowed the state to complete the Neuse Plan one year early.

Since the first Neuse River Basin plan was finalized in March 1993, North Carolina has systematically followed its statewide schedule and produced initial plans in 14 other basins. Plans in the remaining two basins are scheduled for 1998, which marks the end of the first complete iteration of the management cycle for all basins throughout the state. State agency staff indicate, however, that implementation has not been without its challenges. Increasing workload demands for basin coordination have led to creation of two additional Basin Coordinator positions. More resources have also been devoted to data management and computer-based watershed analysis, and the nonpoint source program. The agency is now administering nonpoint source teams to develop integrated action plans for controlling nonpoint source contamination in areas designated for restoration or special protection.

The establishment of several large basin and watershed associations is another outgrowth of the basin approach in North Carolina. Some are associations of NPDES dischargers, some are associations of local governments, and others include significant citizen participation. These associations are helping to define management issues and objectives at the local level, often providing substantial amounts of monitoring information to supplement the Water Quality Section's databases. These bridges between the Water Quality Section's statewide basin planning and local watershed management will likely constitute the next generation of the watershed management framework for North Carolina.

Tennessee

In 1995, the Division of Water Pollution Control (WPC) formed a core group of program managers to develop a statewide watershed approach to monitoring, assessment, and NPDES permitting. The group visited Georgia and reviewed the North and South Carolina statewide watershed approaches to share lessons learned and glean ideas to use in Tennessee. Since regional offices of WPC would play a strong role, the group delineated watershed boundaries and groupings of watersheds that would balance regional workloads. Next, it designed a schedule for monitoring and assessing water quality and issuing NPDES permits on a watershed basis. To help implement this watershed approach, the Division reorganized its structure to create a new Watershed Management Section with five staff. The staff included three Basin Coordinators (each covering a region of the state), a GIS staff person, and a supervisor who was also in charge of TMDL development.

Scoping

February 5–6, 1996 Session. Facilitators met individually and as a group with WPC staff who had designed the watershed approach and the staff of the Watershed Management Section. They discussed facilitation needs and staff concerns about implementing a more comprehensive watershed approach. The next day a Statewide Watershed Management Workshop was held for program and senior managers in WPC to review the functions and components of a comprehensive statewide watershed management framework; to assist staff in defining short- and long-term management objectives, as well as important activities and partners needed to meet those objectives; and to identify important next steps in implementing Tennessee's watershed approach.

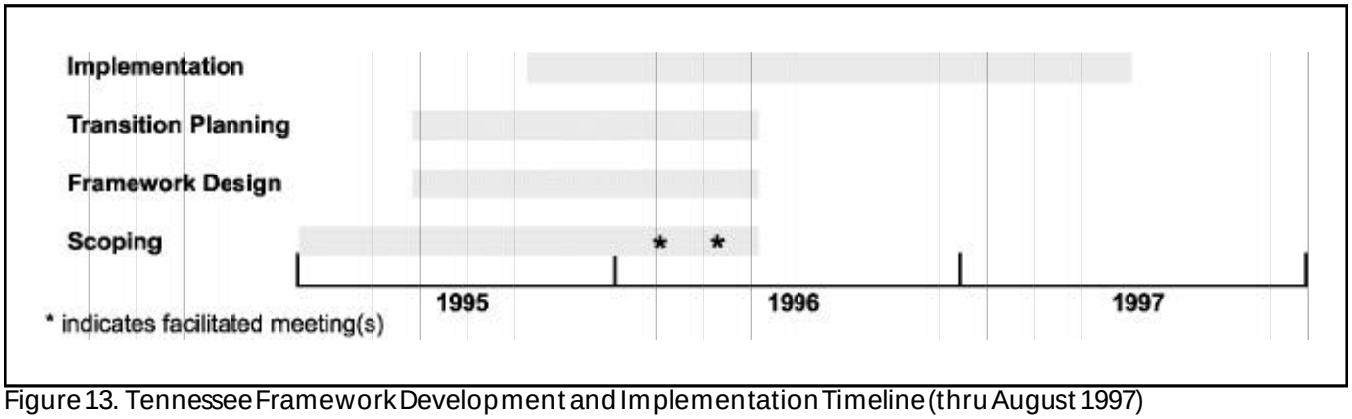


Figure 13. Tennessee Framework Development and Implementation Timeline (thru August 1997)

May 9–10, 1996 Session. The facilitators met with WPC staff to share information about how other states incorporate public involvement and coordinate partner activities in their watershed management cycles to enable WPC to gauge its approach with other state approaches. The second day, approximately 30 representatives from state and federal agencies attended a WPC Watershed Initiative Workshop, primarily to learn more about WPC's current watershed approach and to explore new opportunities for coordinating efforts. WPC staff agreed to follow up the workshop with calls to participants to discuss cooperative efforts in more detail.

Implementation

WPC plans to initiate its watershed management activities in all watersheds across the state by the year 2000. It has begun synchronizing municipal and industrial permits, and it is on schedule in conducting public outreach and strategic monitoring in its group 1 and group 2 watersheds. In the coming year (1998), it is scheduled to conduct integrated assessment and begin TMDL development for its group 1 watersheds.

Texas

Serious consideration for developing a comprehensive statewide watershed management framework in Texas began in 1993. The state was already using a basin approach for monitoring and assessment based on the Clean Rivers Act adopted in 1991. Agency directors within the Texas Natural Resource Conservation Commission (TNRCC) were interested in how a statewide approach would help them to coordinate management decision-making and implementation activities with the basin monitoring and assessment efforts.

Scoping

1993–1994. In early 1993, TNRCC invited a representative of North Carolina to come and give a presentation on North Carolina's statewide basin management approach. As interest increased, the Commission hired a facilitator to help the agency further explore application potential for Texas. After a series of internal discussion meetings, TNRCC held a 2-day workshop in July 1993 for a large portion of its staff. The concerns of some of the staff led to identification of key issues to be resolved and formation of several work groups to resolve the issues before moving ahead. The work groups met on their own (i.e., without a facilitator) throughout 1994 and addressed most of the outstanding concerns. In late 1994, TNRCC established a Watershed Coordinator position to help expedite development of a comprehensive statewide framework.

Framework Design

1995. During the early part of 1995, the Watershed Coordinator compiled the results of the scoping work groups and met with key staff to determine next steps. In May 1995, TNRCC contracted an experienced facilitator to assist the Watershed Coordinator in identifying gaps in the state's proposed approach and preparing a framework document that the agency could use as guidance for implementation. An internal work group was formed and an initial vision for the framework was established, including the idea that the framework would be developed and supported by a broad range of agencies and organizations involved in water quantity and quality management. Preliminary designs of the core framework elements were documented to provide a basis for discussion with potential partners.

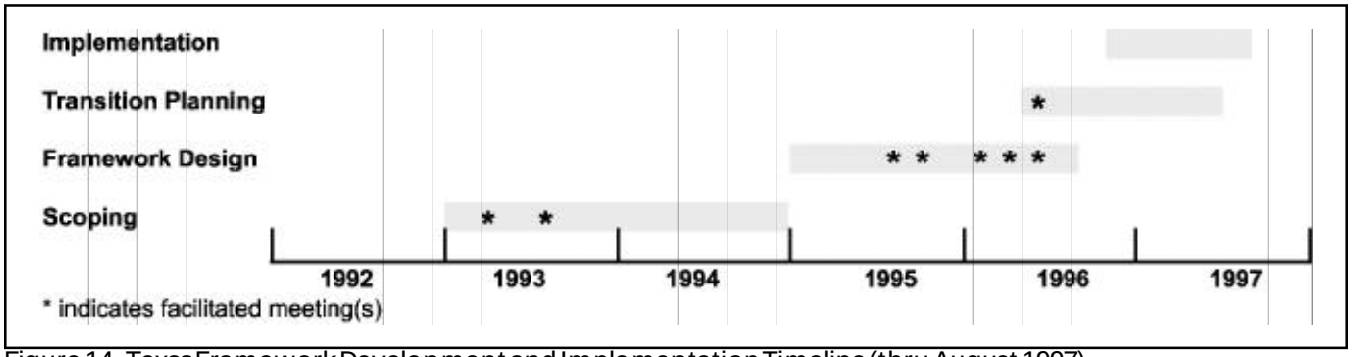


Figure 14. Texas Framework Development and Implementation Timeline (thru August 1997)

Representatives of the TNRCC work group hosted a meeting in September 1995 with potential partners from many different agencies and organizations. The degree of interest in a multipartner watershed framework was not at the level hoped for by TNRCC. Some attendees were concerned that the approach would constitute a new bureaucratic layer and were skeptical that an integrated effort of the magnitude envisioned could be accomplished. At approximately the same time, changes in the Executive Director and Commissioner positions occurred. After discussion with the new leadership, TNRCC decided to complete design of its framework at a reduced scale.

January–August 1996. The Watershed Coordinator and facilitator used a team approach to complete framework design and documentation. Meeting with individuals and groups within TNRCC's Office of Water Resource Management, they worked out detailed activity guides for each participating program and designed a combination of organizational forums for conducting coordinated efforts at three scales—local watershed, river basin, and statewide. With the help of the facilitator, TNRCC completed a draft framework document in August 1996.

Transition Planning

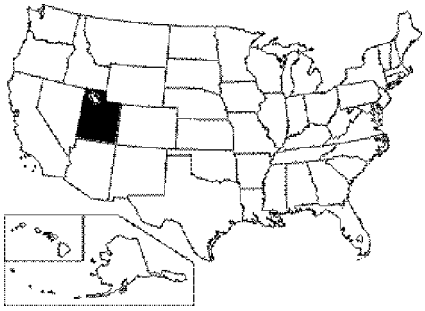
May–August 1996. The facilitator helped TNRCC identify next steps that should be taken to support implementation and incorporated these recommendations into the draft framework document.

September 1996–June 1997. The Watershed Coordinator produced and distributed the draft framework document among agency staff, and then managed the review and refinement process. Simultaneously, the Watershed Coordinator helped key program staff and managers to begin developing work plans and budgets that reflected the new framework design. A refined framework document was published and distributed both inside and outside TNRCC in March 1997. Work continued with the Coordinator and key program staff to develop work plans, budgets, and supplemental guidance, and to update standard operating procedures as needed. Renewal of the Clean Rivers Programs with continuing appropriations by the state legislature, also resulted in agency staff's working with River Authorities and other program contractors in updating operational agreements and guidance.

Implementation

TNRCC's framework calls for phased implementation, beginning in fiscal year 1997, with scoping and data collection plan development in two of the state's five basin groups. The Surface Water Quality Monitoring Team worked with the River Authorities and other Clean Rivers Program contractors to successfully scope priority issues and develop strategic data collection plans for these basin groups. Continually increasing pressures for TMDL development is having a strong influence on where data collection and strategy development efforts are targeted. Consequently, the first set of priority watershed action plans, with accompanying TMDLs, is scheduled for the year 2000 in Basin Group E. For the remaining four basin groups (A, B, C, D), action plans for the first set of priority watersheds are scheduled for 2001, 2002, 2003, and 2004, respectively. In the interim, TNRCC is encouraging stakeholders within each basin to maintain ongoing management efforts and initiatives to add to the foundation for future integrated efforts.

Utah



While working on the Bear River Project with colleagues from several federal natural resource management agencies, state agencies from three states (Utah, Idaho, and Wyoming), local agencies and stakeholder groups, a staff person from Utah's Division of Water Quality (DWQ) recognized the potential for providing stability and long-term support for this successful effort through the watershed approach. He also saw the potential for replicating this success statewide.

Scoping

May 1994. At the USEPA Region 8 Denver watershed workshop, participating DWQ staff members identified three primary objectives that a watershed approach could address in Utah. The staff provided a briefing for the DWQ Director on the watershed approach.

November 1994 Session. The DWQ Director approved the formation of a watershed approach work group that included members of all participating programs within DWQ. The mandate was for a watershed framework to organize DWQ activities only and to include only DWQ staff. However, DWQ staff were directed to develop a framework that allowed voluntary participation of other agencies and citizen stakeholders and included a comprehensive communication strategy to identify and address issues raised by potential partners.

The purposes of the first work group meeting were to educate participants on the statewide watershed approach, to establish a common mission statement, and to define the process for developing Utah's watershed approach. The work group chose to adopt the nine common elements of the watershed approach as design tools for the framework development process. The work group used the elements to identify milestones for the framework development process and to establish a schedule.

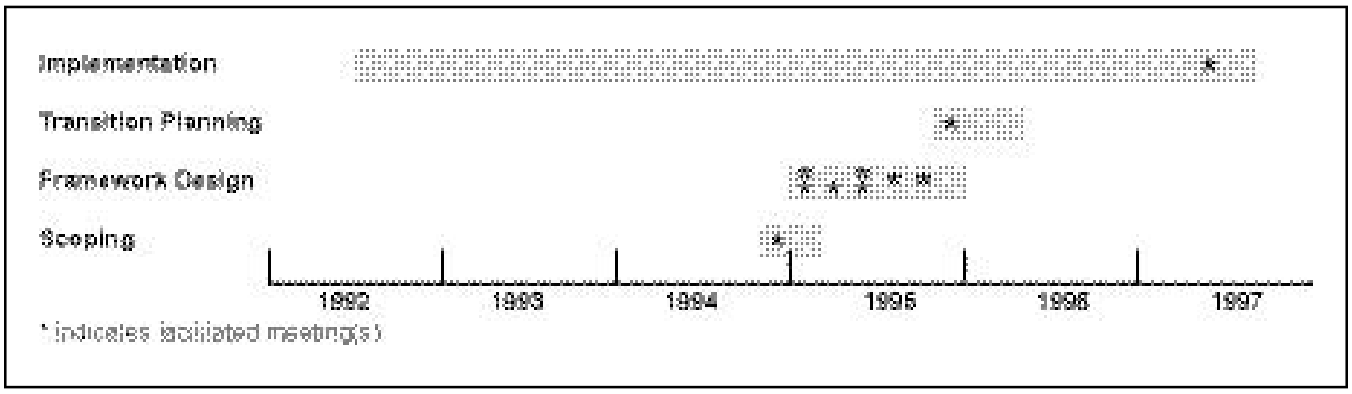


Figure 15. Utah Framework Development and Implementation Timeline (thru August 1997)

Framework Design

January–September 1995 Sessions. Approximately six facilitated work group sessions were held during this time period to design the statewide watershed approach. In addition to the facilitated work sessions, assignments were given to individual work group members. Example assignments included:

- Developing a description of statewide monitoring procedures for conducting the strategic monitoring component for the watershed management units.
- Serving as liaison with partner agencies to present the watershed management unit delineation decisions and to compile partner comments for further consideration by the work group.
- Compiling a permit map and schedule to use as criteria for sequencing the watershed management units.
- Preparing a description of program outputs for each step in the watershed management cycle.

The work group used a pilot watershed (Jordan River) management plan to develop watershed management cycle steps, length of schedule, roles and responsibilities, and priority setting and targeting criteria. Also, the work group developed an annotated framework document outline.

October 1995–May 1996. The facilitator used the annotated outline and the meeting notes to compile a draft watershed management framework document. A review draft of the framework document was completed in February 1996. The final draft included guidance on DWQ job performance criteria for watershed teams and individual staff. The job performance criteria are keyed to the watershed management cycle steps and help to clarify how program managers can track assignments within the watershed approach matrix.

Transition Planning

May–July 1996. USEPA's Office of Water sponsored a Watershed Academy - Executive Short Course to provide training to the Jordan River Watershed Team for assessment, priority setting, and targeting procedures. DWQ staff and watershed partners have identified additional transition and training support as an ongoing area of need.

Implementation (Post-Facilitation)

Six of the ten watershed management units have begun the watershed management cycle. The first step for each of the six units was the completion of a strategic information collection and monitoring plan. Collaborative information collection and monitoring are being guided through these strategic plans. Each of the six active watershed management units is using the stakeholder involvement forums (Stakeholder and Technical Advisory Committees) and procedures described in the framework document. The remaining four watershed management unit cycles will be initiated in the next 2 years.

The only component lagging in the implementation of the approach is the development of integrated management plans. Those interviewed for this background analysis describe the status of integrated plans as pending. DWQ staff expect that some form of documentation of watershed conditions and management strategies will be undertaken in the near future.

Washington

Two outside factors drove the Department of Ecology - Water Quality Program (WQP) to develop a watershed approach. First, the state legislature sponsored a review of the Department's efficiency within permitting programs. Second, a settlement agreement between USEPA Region 10 and Northwest Environmental Advocates called for the development of a "North Carolina" style basin approach with third- party facilitation and a 6-month deadline for completion. Because of the tight deadline and the need to have a product to satisfy these outside parties, Washington's original initiative focused on completing a framework *document* addressing only permitting functions; it gave less attention to internal team building and external partnerships than had characterized other framework development projects.

Scoping

August 1992 Session. The scoping meetings with WQP staff were, at the outset, greatly constrained by conditions of the settlement agreement. For example, although many participants wanted to make the process more inclusive of other programs and agencies, the agreement made this problematic. Therefore, during scoping, short- and long-term visions were developed with a strategy for phased implementation that allowed for including a broader range of programs and issues at a later time.

The facilitation team met with small groups, and with individuals both in headquarters (Olympia) and in the regional offices to review the North Carolina Basin Approach framework and determine how it could be applied to increase efficiency within the WQP program.

Framework Design

October 1992 Session. The work group delineated 32 Water Quality Management Areas (WQMAs) divided approximately equally among the four regional offices. Water quality management activities were organized into four steps (Scoping, Data Collection/Analysis, Technical Report, and

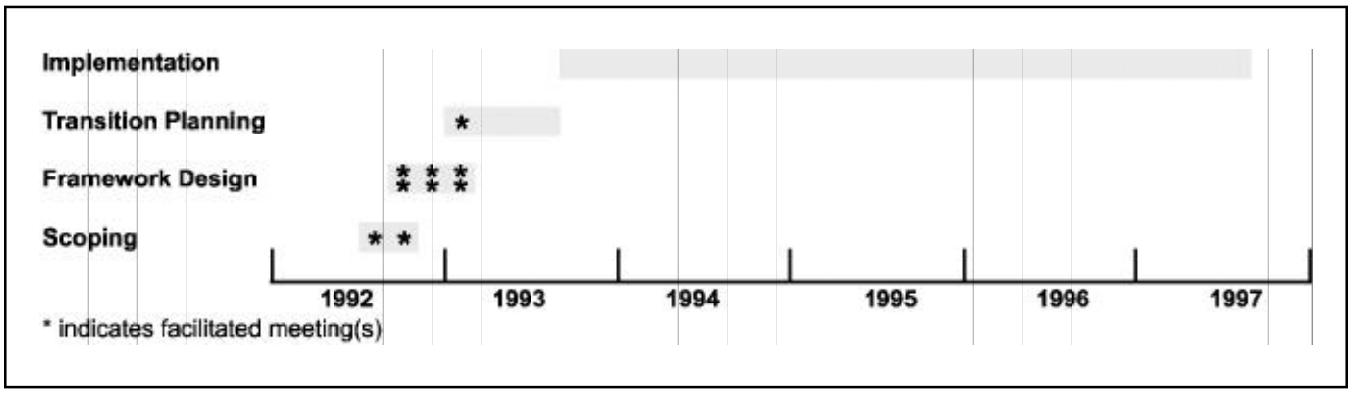


Figure 16. Washington Framework Development and Implementation Timeline (thru August 1997)

Implementation) completed on a repeating 5-year cycle. The group developed a strategic monitoring program that could address the initial permitting focus of the program as well as the more substantial monitoring requirements for TMDLs and the storm water program.

November 1992–March 1993 Sessions. The work group developed the framework document outline. The first internal review draft framework was distributed in January 1993 and reviewed by Ecology staff at a workshop that month. The draft framework was distributed to regional offices in February. The work group responded to comments on the internal review draft and completed the public review draft in early March.

Transition Planning

January–July 1993 Sessions. A workshop was held for internal review of the draft framework document. It was the first opportunity for many of the staff to participate in development of the framework; and, while there was general support for the initiative and the draft framework, many staff felt that the scope was too narrow. Following the workshop, the work group assumed responsibility for many small group meetings (e.g., brown bag lunch information sessions) to explain the framework and to receive additional comment. The draft final framework was produced in July 1993.

Implementation (Post-Facilitation)

The WQP has used the watershed framework since 1993 to geographically coordinate the activities of its permitting teams for NPDES, the State Water Pollution Control Act (Chapter 90.48.RCW), and the State Waste Discharge Permitting Program (Chapter 173-216 WAC). A Watershed Coordinator position has been added to track the implementation of the watershed framework statewide and to recruit the involvement of other programs and agencies. More recently, the activities of the nonpoint source planning team and others have been added to the framework. The approach now encompasses most of Ecology's Clean Water Act planning and implementation activities.

The Governor's office and senior Ecology management have recently decided that the WQP 5-year cycle (i.e., Scoping, Data Collection/Analysis, Technical Report, and Implementation) and the WQMAs can provide the basis for integrating and coordinating other watershed initiatives within the state. An example of the expanded scope includes coordination of the Water Resources program with WQMA teams to conduct watershed-level water allocation assessments before issuing new or revised water rights permits. Several agencies are using the framework to begin coordinating efforts in response to Endangered Species Act concerns. To date the Technical Report has not followed the format and content recommendations presented in the framework document. However, the increased involvement of other programs and agencies is likely to lead to more substantive watershed documents. The focus of many watershed partnerships within the WQMA framework has been on the development of information management and communication support clearinghouses (e.g., Yakima, Nooksack). It appears that the WQMA clearinghouse will be an increasingly common feature of the Washington watershed approach.

West Virginia

In early 1996, the West Virginia Office of Water Resources (OWR) was in the midst of four major initiatives that would significantly shape its way of doing business for years to come. Three *internal* initiatives—strategic planning, permit reengineering, and statewide watershed monitoring and assessment—were driven by the Office's desire to become more effective and efficient in protecting water quality and to strengthen its working relationship with citizens, businesses, and other stakeholders. The fourth initiative—outlining how Total Maximum Daily Loads (TMDLs) would be developed in a sound and timely way—was to provide an integral part of a legal settlement between EPA and various environmental groups. As the TMDL settlement was being crafted, it was clear that OWR had regulatory purview over only a small percentage of the waters that would need a TMDL and that any legal settlement and its implementation would have major implications for other state and federal agencies. These four initiatives converged on the need for a more integrated approach to water quality management, including connecting the efforts of the various internal initiatives as well as building partnerships with numerous external offices and agencies.

Scoping

April 30, 1996, Session. To help meet this need for integration, program directors and executive managers within West Virginia Division of Environmental Protection (DEP) met to begin scoping the benefits of developing a statewide watershed management framework. The DEP Secretary expressed strong support for the watershed approach and indicated his intent to use it to coordinate the water quality protection activities of multiple offices in DEP. DEP's Office of Water Resources assumed the lead role.

May 29–30, 1996, Session. Thirty state and federal agency and division directors attended a *Statewide Watershed Management Workshop*

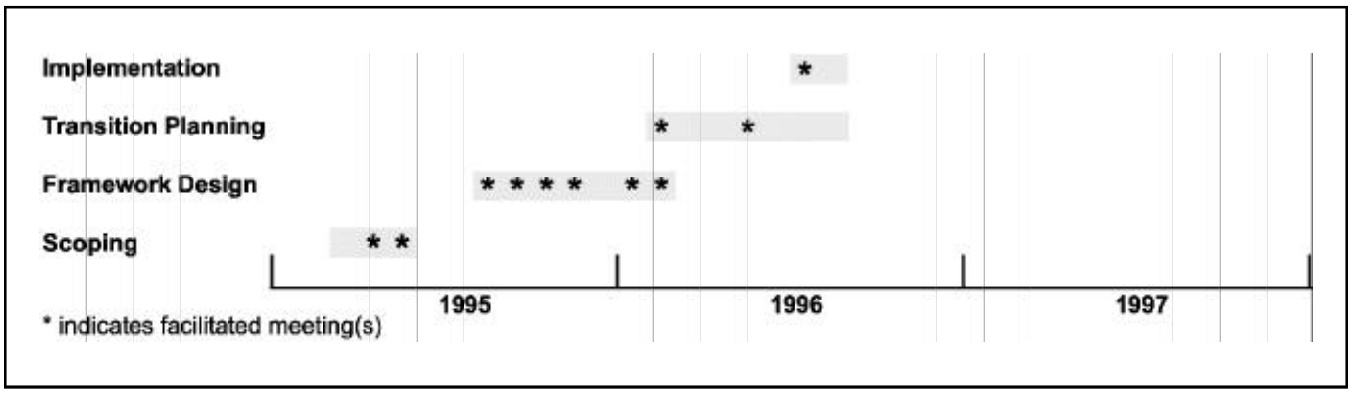


Figure 17. West Virginia Framework Development and Implementation Timeline (thru August 1997)

to learn about the statewide watershed approach and discuss how it could address future challenges they faced. They agreed to explore developing an interagency management framework. The following day, 50 DEP Office of Water Resources staff attended a workshop, *Implementing a Statewide Watershed Framework for West Virginia*, where they learned about and discussed the watershed approach, opportunities and concerns it poses, how staff should be involved in designing the framework, and who should be in the workgroup. OWR asked the facilitators to coordinate and integrate a number of initiatives with watershed framework development—internal strategic planning, permit reengineering, performance partnership agreement, and the TMDL lawsuit.

Framework Design

August 15–16, 1996, Session. Formal appointments were made to an interagency work group charged with designing the watershed framework. The group agreed to a work plan and key milestones to reach in building a watershed management framework by February 1997, goals and objectives for the framework, and main activities that should be included in a management cycle. It discussed how activities could be synchronized within hydrologic regions to balance workloads and reviewed a draft grouping of West Virginia's 32 hydrologic regions.

September 24–25, 1996, Session. The work group developed components for a program activity guide, identifying which partner programs and agencies are needed for each of the 10 watershed management activities, lead and support roles, products produced, and time requirements. The group set a 4-week deadline for members to get feedback from their program staff on proposed roles and responsibilities.

October 31–November 1, 1996, Session. The work group reviewed and discussed the *Draft Watershed Management Program Activity Guide*. It outlined ways to promote and support stakeholder involvement (including partner agencies, interest groups, and citizens) and developed a recommended organizational structure to support coordinated watershed management. It identified additional workload needs and recommendations for meeting these needs. A subcommittee presented a draft template/outline for future Hydrologic Region Status Reports and Priority Watershed Management Plans. The work group set a target date of November 15 for all members to brief their senior managers regarding the progress of framework development and its management implications. A new Governor was elected.

January 13–14, 1997, Session. A subcommittee presented draft strategic monitoring and assessment plan outlines. The primary focus was on the presentation and discussion of alternative prioritization methods and criteria that should guide development of West Virginia's prioritization and targeting approaches. A subcommittee was formed to refine the method outlined by the work group. The group reviewed and revised a draft outline for the *West Virginia Watershed Management Framework* document. It finalized the *Watershed Management Program Activity Guide*, the recommended administrative structure, and the grouping of hydrologic regions. The work group proposed that partner agencies sign a Resolution of Mutual Intent to implement the watershed management framework. Members agreed to float the idea with senior managers before the next meeting.

February 20–21, 1997, Session. The work group reviewed the municipal and industrial NPDES permit synchronization schedule; the Office of Mining and Reclamation indicated a desire to synchronize its permits if hydrologic groupings can be refined to balance the workload of all programs. The group reviewed and discussed the subcommittee's draft proposed prioritization method and outlined revisions that would be needed before sending its out for review by TMDL litigants. A major focus was detailed review and revision of the *West Virginia Watershed Management Framework* document. The work group reviewed and discussed the draft *Resolution of Mutual Intent*; all members said their managers indicated support of such a resolution. The work group set a target date for briefing agency directors and senior managers on latest draft of the *West Virginia Watershed Management Framework* and the *Draft Resolution of Mutual Intent*. It planned a signing ceremony for watershed management partners (targeted for mid-April).

Transition

February 21, 1997, Session. The group discussed key next steps in implementation. Two partner agencies dedicated funding for a new Basin Coordinator position.

March–April Briefings and Finalizing Framework Document. Work group members briefed senior managers. The new DEP Secretary was appointed and briefed on framework development; he indicated strong support. The new Governor, after being briefed on the watershed management framework document, expressed strong support and a desire to host the signing ceremony in the Governor's office. Legislative committees were also briefed. Three new agencies, who had indicated earlier they did not wish to be part of the framework design, said they would like to be signature parties to the *Resolution of Mutual Intent*. The Workgroup finalized groupings of hydrologic regions and the schedule for synchronizing all municipal, industrial, and mining NPDES permits. The *Framework* document and *Resolution* were finalized.

May 29–30, 1997, Session. The *Partners' Information Session* provided an overview of the Watershed Management Framework, the responsibilities of the Interagency Steering Committee, and anticipated benefits of this partnership. Those invited to the session included senior agency management, members of the staff work group that had designed the framework, media representatives, and environmental and business associations. After a reception, the group attended a ceremony at the Governor's office where partner agencies and the Governor signed the *Partnership for Statewide Watershed Management Resolution of Mutual Intent*. Signatory agencies included the West Virginia Division of Environmental Protection, West Virginia Soil Conservation Agency, West Virginia Division of Forestry, West Virginia Bureau of Public Health, West Virginia Bureau of Commerce, U.S. Environmental Protection Agency, U.S. Geological Survey, U.S. Office of Surface Mining, U.S. Forest Service-Monongahela National Forest, and the Natural Resources Conservation Service. On May 30, transition issues were discussed.

June 1997. Members of the Interagency Steering Committee were appointed by the agency directors. An orientation work session was held for new Steering Committee members. A draft job description for the Basin Coordinator position was developed, along with a schedule for hiring the Coordinator.

Implementation

July 1, 1997, Session. The Interagency Steering Committee held a kick-off meeting to assign responsibilities for completing the first hydrologic region status report for the Upper Ohio and to plan coordinated public outreach for the first grouping of watersheds. The Office of Water Resources began synchronizing all NPDES permits.

West Virginia has five groupings of watersheds across the state, with five to six watersheds per grouping. Over the next 6 months, the watershed partners will complete the Upper Ohio pilot project status report. They will also initiate public outreach and screening-level monitoring and write watershed status reports in the remaining five watersheds of group 1. Partners plan to initiate watershed planning and management in all five groupings by the year 2000.